

FIG. 5

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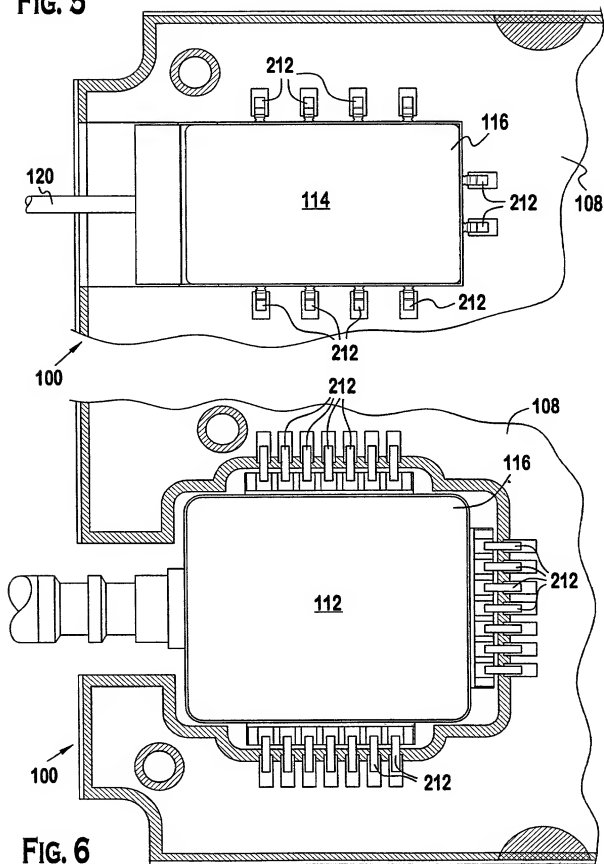
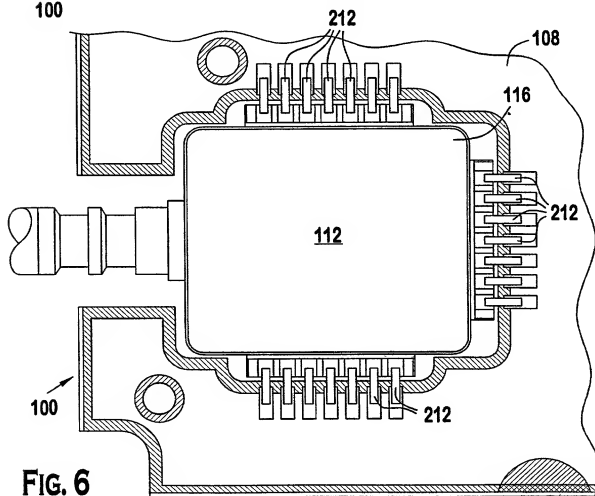
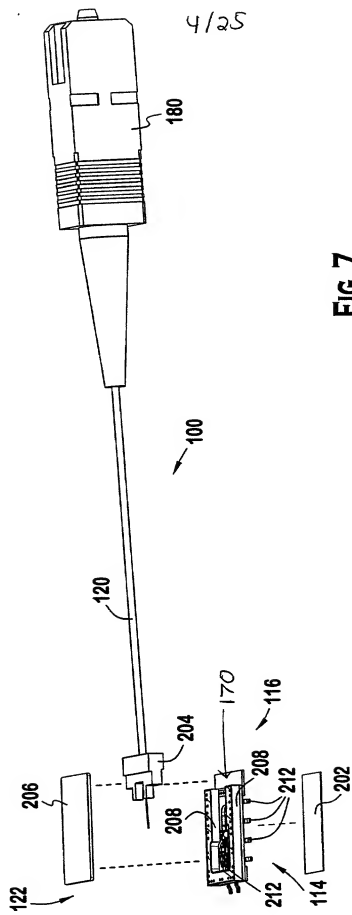
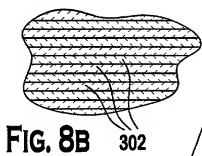
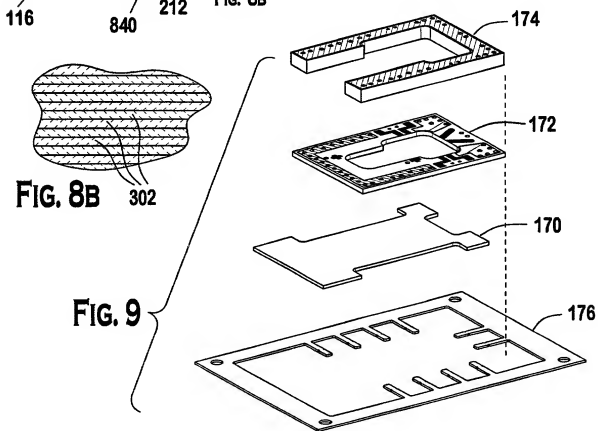
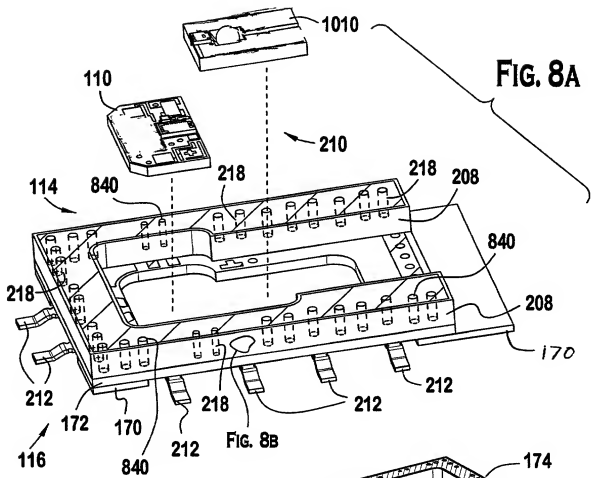


FIG. 6

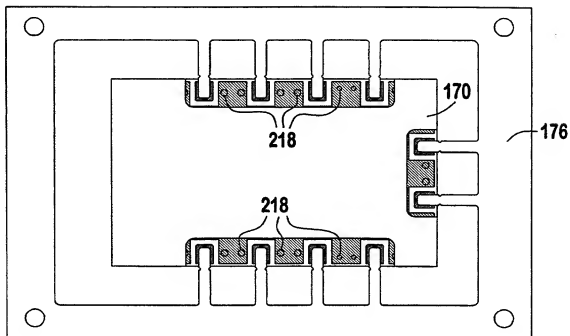




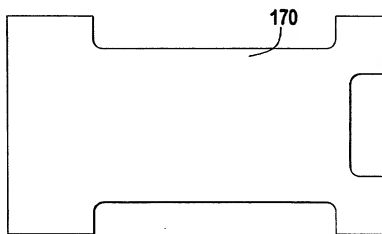


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**FIG. 10**



**FIG. 11**



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FIG. 12

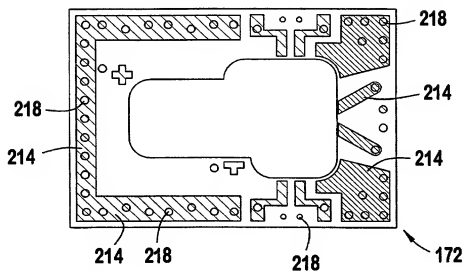


FIG. 13

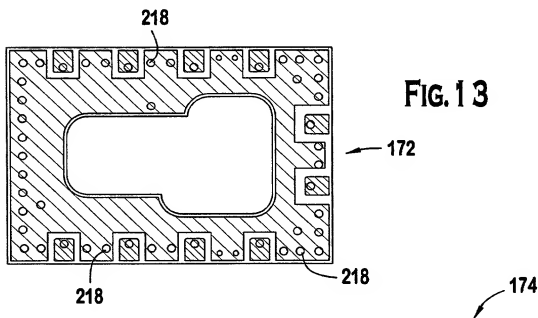
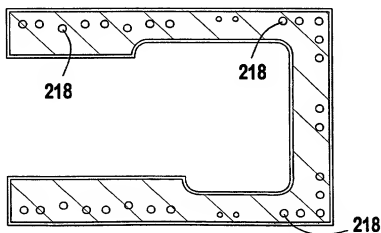


FIG. 14



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FIG. 15

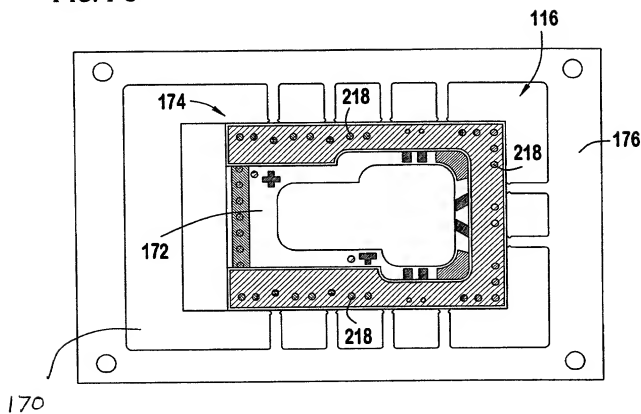
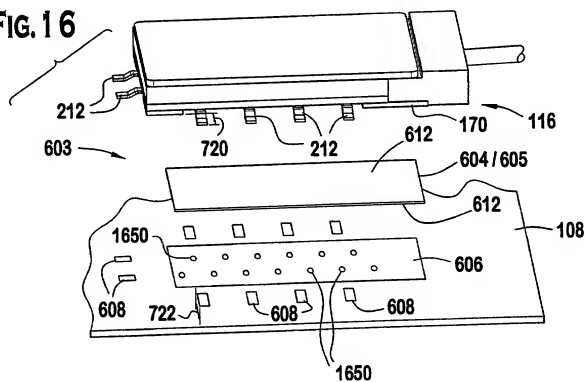


FIG. 16



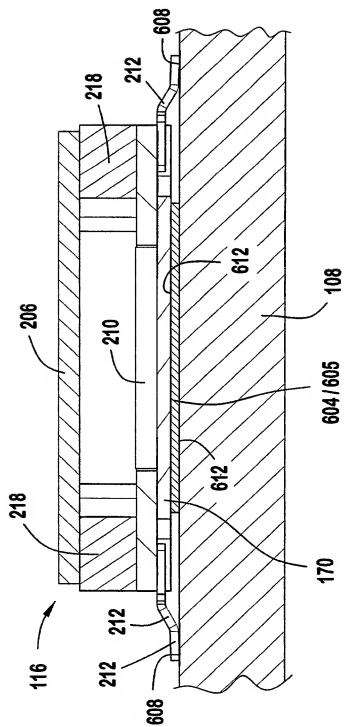


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[illegible]

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FIG. 18



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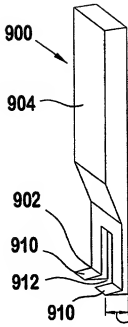


FIG. 19A

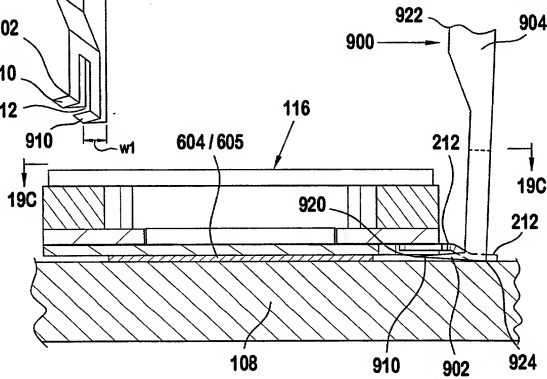


FIG. 19B

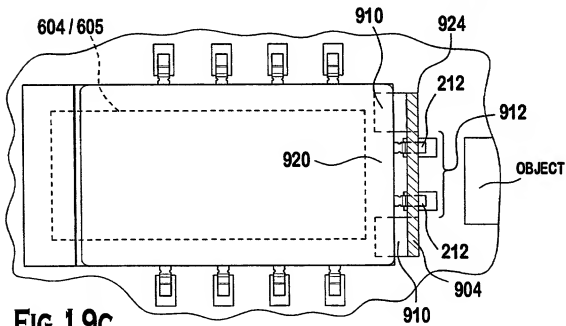


FIG. 19c

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FIG. 20B

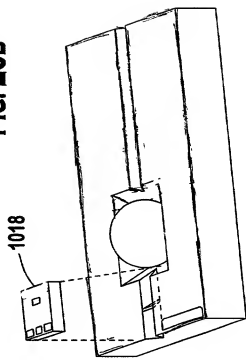
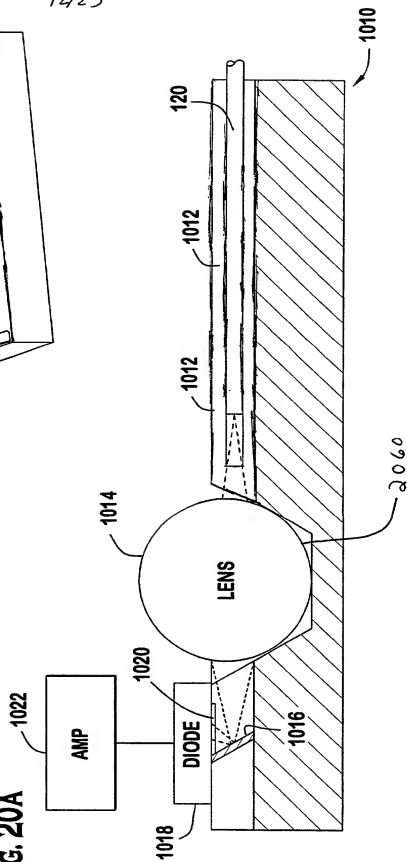


FIG. 20A



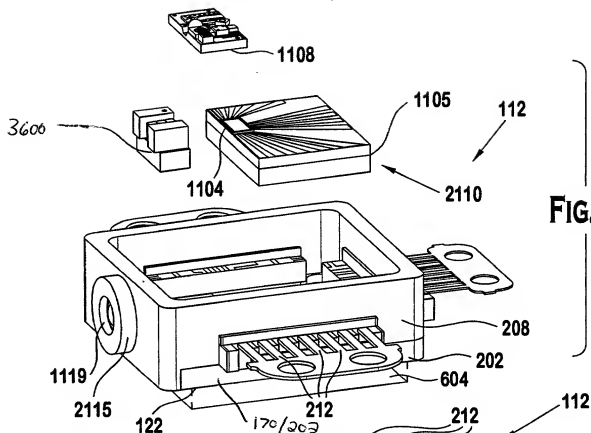
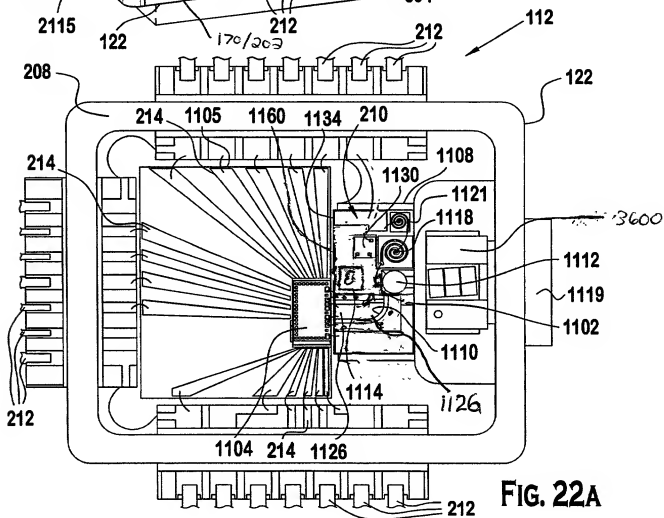


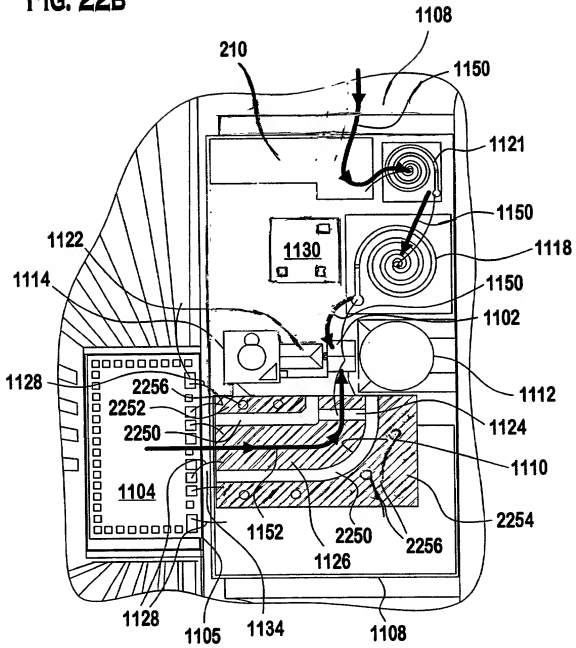
FIG. 21



**FIG. 22A**

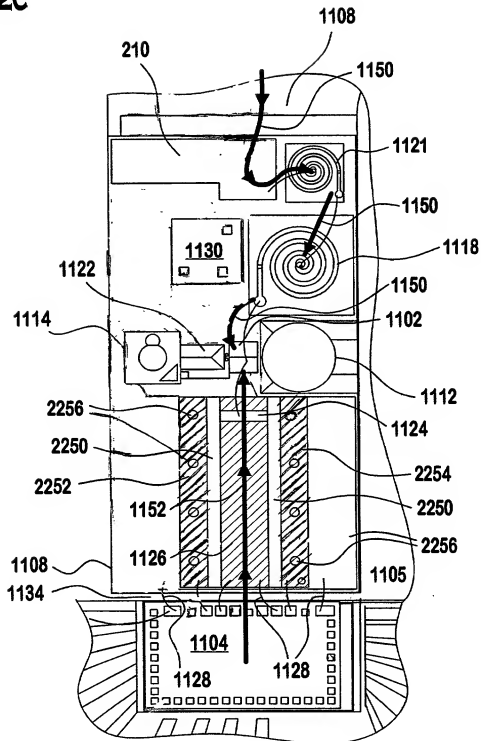
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FIG. 22B



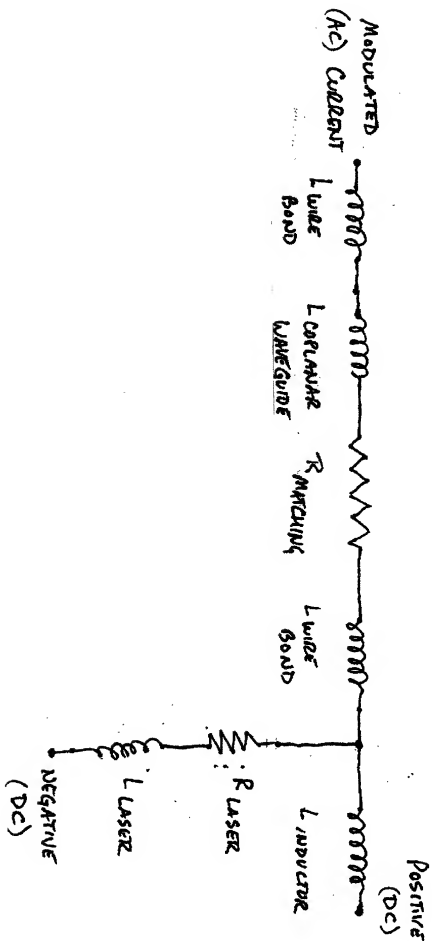
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FIG. 22c



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FIG 22D



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TEMP CURVE 1 > TEMP CURVE 2 > TEMP CURVE 3

FIG. 23

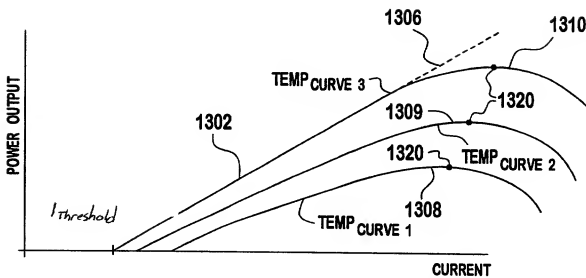
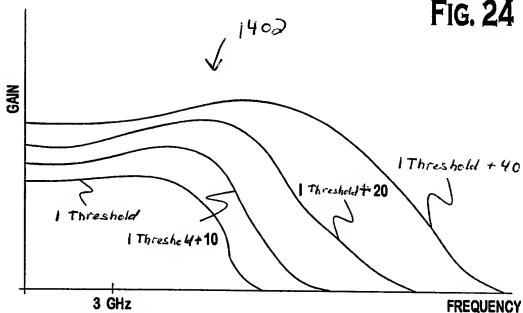


FIG. 24



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FIG. 25

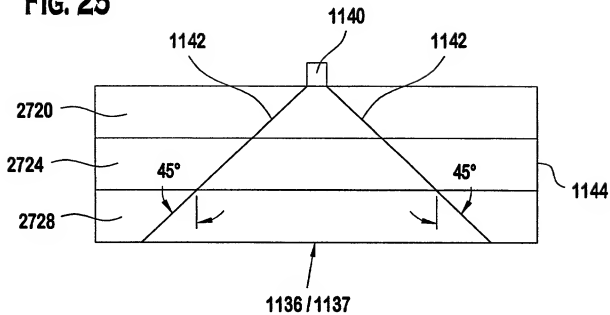
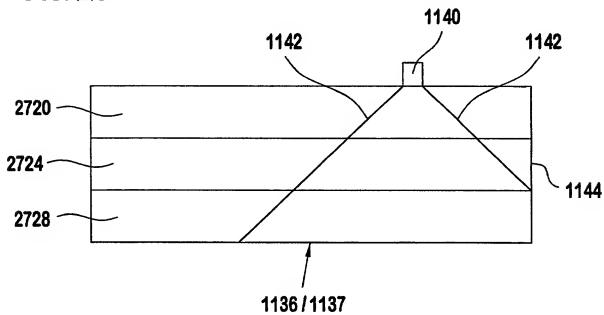


FIG. 26



27c

TRANSMITTER 1104

LASER DRIVER IC 1102

LASER 1108

1105

AlN

605

Cu W

Si

1606

Al

123

402

402

Detailed description: This cross-sectional view shows a semiconductor device 27c. At the top, a 'TRANSMITTER 1104' is positioned above a 'LASER DRIVER IC 1102'. Below the driver IC is a layer of 'AlN' (Aluminum Nitride) labeled 1105. A 'LASER 1108' is located on the right side, with a 'Si' (Silicon) layer 1108 on top of it. A 'Cu W' (Copper Tungsten) layer is also present. Below these is a layer labeled 605. The base of the device is a thick layer of 'Al' (Aluminum) labeled 1606. At the bottom, there are several rectangular features: a central one labeled 123 and two side ones labeled 402.

FIG. 28

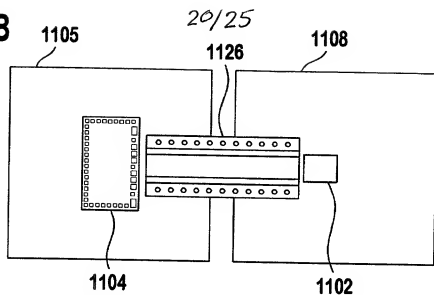


FIG. 29

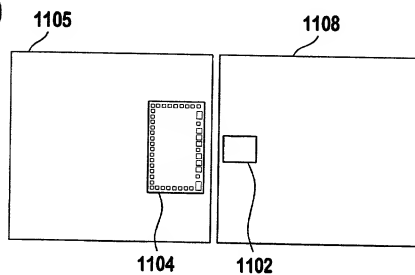


FIG. 30

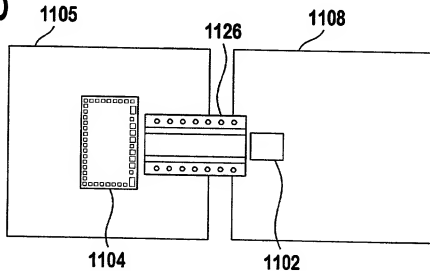


FIG. 31

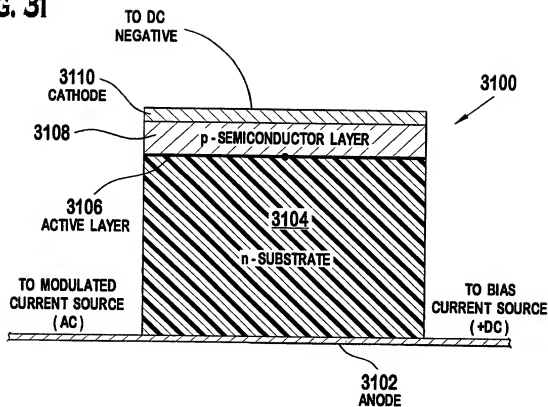


FIG. 32

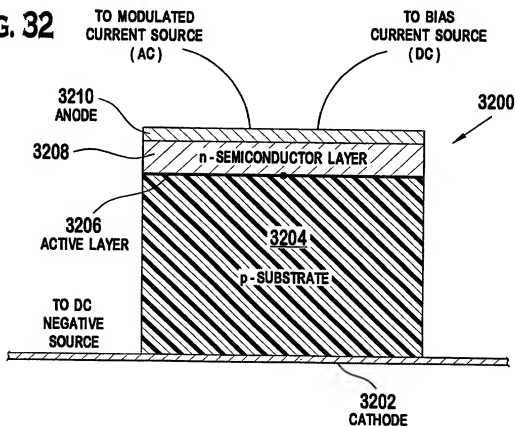


FIG. 33A

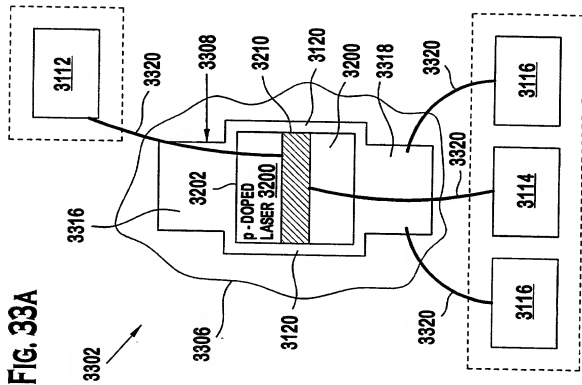
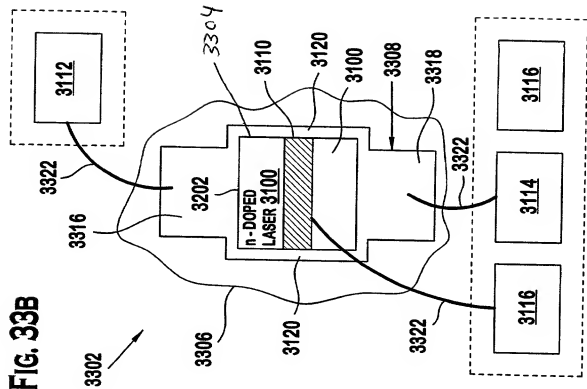


FIG. 33B



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FIG. 34

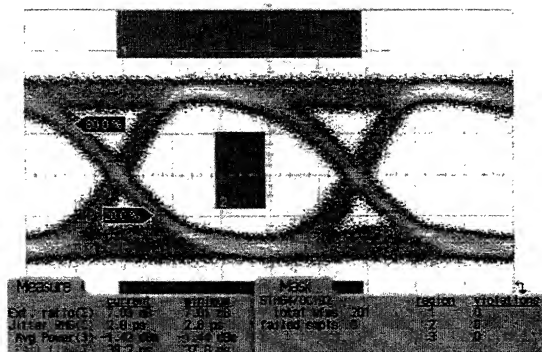
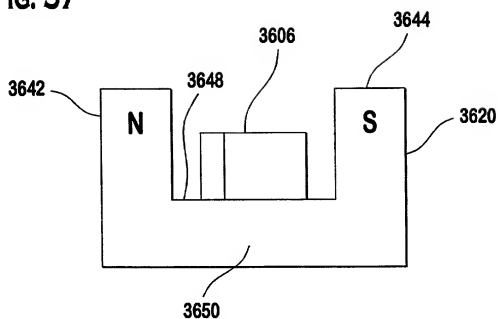


FIG. 37



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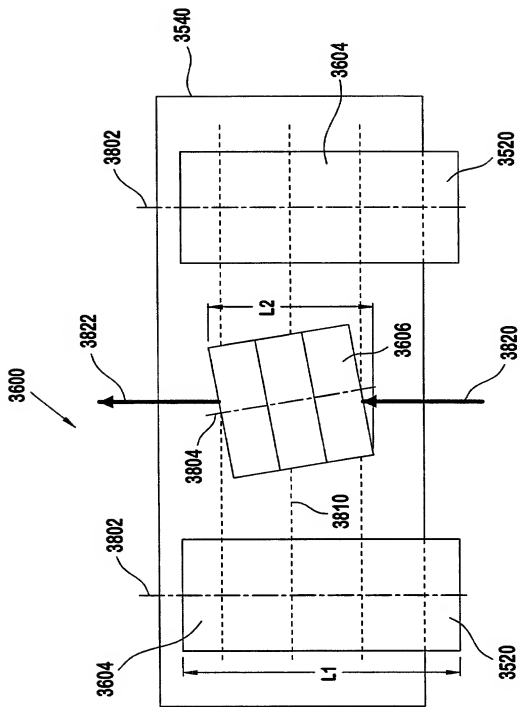


FIG. 35



